

The National Geographic Magazine

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THE
National Geographic Magazine

VOL. X

JANUARY, 1900

NO. 1

THE STIKINE RIVER IN 1898

By ELIZA RUDMAN SCHMIDT

The Klondike excitement of 1897 turned attention to the Stikine river as affording an easy route through the Coast range of mountains to the interior of the Northwest Territory, since it was known that Indians, Hudson's Bay Company traders, and surveyors of the Western Union Telegraph Company had long ago used a trail from the upper Stikine across to the lakes and waterways leading to the upper Yukon.

The Stikine was not an unknown or undiscovered country, but only an abandoned one, as the discovery of gold in its river bars in 1861 and richer placers in the Cassiar country beyond in 1873 drew thousands of miners to summer camps, until the exhaustion of the richer placers, the need of machinery, and the discoveries elsewhere drew that flock and floating population away. Steamers were withdrawn from the river ten years ago, the old camps disappeared in underbrush, and Ft. Wrangell, the post of transshipment for all this trade and travel, fell away to a mere Indian village again.

The Klondikers appeared in numbers last January, and continued in an unending procession over the Stikine's frozen surface until the river opened in April, when a dozen light draft stern-wheel steamers, fitted with powerful engines, ran, crowded to the guards, for a few weeks. The Hudson's Bay Company put on some fine boats, and the Canadian Pacific Railway Company sent up a dozen steamers, all named for eminent Canadians, the two swiftest river boats on the Stikine appropriately bearing the names *Ogilvie* and *McConnell*, in honor of those two members of the Dominion Geological Survey. Glenora, the head of naviga-

tion, 125 miles from Ft Wrangell, and Telegraph Creek, 12 miles beyond Edenburg, are starting points on the trail that leads through an open, hilly, and grassy country for 145 miles to Lake Teslin, whence there are no interruptions to boat navigation to Dawson City, a distance of 525 miles. Bills were introduced in the Canadian Parliament giving rights to convert the trail into a wagon road, and a great land grant was to be conferred on the builders of a railway. The railway to Lake Teslin was to be completed by September, and this "all-Canadian route" appealed to many, and especially to British fortune-seekers. A trail from Ashcroft, on the Fraser river, reaches the Stikine at Telegraph Creek, and many who ventured on this longest of all the land routes toward the Klondike district met with disastrous adventures in the great woods.

Ft Wrangell, Alaska, where the ocean steamers landed the all-Canadian army of gold-seekers, was crowded all winter and revived its prosperity of thirty years before. A "boom" of extravagant proportions was well on in March and collapsed by the end of May with distressing results, when the failure of the railway land grant measure resulted from the many political entanglements and jealousies at the Canadian capital. Ft Wrangell real estate took on absurd values while the boom lasted. The tide line was edged for a quarter of a mile with flimsy pine buildings and fragmentary footwalks on stilts; tents crowded upon every vacant spot and whitened the hillside. A score of saloons ran wide open, despite Alaska's severe prohibition laws; the most barefaced gambling games and swindling schemes were conducted on every side without concealment, and this "boomtown" of 8,000 inhabitants displayed all the worst features of such lapses in civilization. Without water supply, drainage, or sanitary measures of any kind, with all refuse dumped into the space before the first row of water-fronting buildings, and with the butcher slaughtering in the open before his shop, Ft Wrangell, in July, was more offensive, parading more filth and smells to the ground space, than any Chinese city I have visited. Great wharves and warehouses were built to accommodate the ocean and river travel, and the restrictions and complications of Canadian and American customs regulations in the border, transshipment, and interport carrying trade were endless. The declaration of war between the United States and Spain, even the certainty of it for some weeks beforehand, brought the Klondike rush to an abrupt end, the adventurous and restless Americans

seeing an easier visit to their eager spirits in enlistment, and investors and investigators prudently holding back to watch the fate of war. To one remembering how quickly and entirely the Klondike retreated from general view and interest in the eastern states, after the blowing up of the *Maize* even, it was not surprising to find that the expected summer rush to the Klondike had failed; even Alaska tourists failed to come, and the fleet of steamers brought around Cape Horn for the busy summer expected would have entailed great losses upon transportation companies but for the sudden necessity of transports for the Philippine expeditions. About the same time that the stream of gold-seekers ceased coming the Teslin railway seemed doomed never to be built, and certainly not before the railway from Skagway over the White pass. The Teslin trail proved too long and too hard for many who had undertaken it, and the river boats that went up the Stikine empty returned crowded with angry and discouraged Klondikers. The angry ones went on to try the shorter routes to the Yukon from Lynn canal; the discouraged ones sacrificed their outfits recklessly in their one wish to return to civilization. A dozen of the useless river steamers were hoarded over at the bows and attempts made to tow them across that roughest part of the Pacific ocean to the Yukon river's mouth, but disaster attended nearly every one of these perilous tows in the open ocean, the seams parting under the strain of waves and hawsers, and the flimsy river boats going entirely to pieces or drifting ashore in hopeless condition.

While the Stikine boom lasted a first opportunity was afforded for pleasure travelers to comfortably view the magnificent scenery of that river, whose valley was aptly called by Dr John Muir "a Yosemite one hundred miles long," but only three tourists or actual pleasure travelers availed themselves of the chance, as far as the most diligent inquiries could establish the fact. Although so powerfully engined, the fleetest of the river boats could only average seven miles an hour against the furious current, making the average trip up to Glenora in eighteen hours, and returning in seven or nine hours, the boats always timing their departures so as to cross the flats at the mouth of the river at high tide, and navigating only during clear daylight. There were no old river captains or pilots surviving from Cassiar times to command this hastily constructed fleet, and the best "swift-water captains" came from the Kootenai, the Snake, and the upper Columbia and learned the Stikine route for themselves, "reading the water" as they went along.

From Pt Highfield, at the end of Kodiak island, a few miles around shore from Pt Wrangell, one has a fine view of the imposing entrance to the Stikine splendors, snow-capped mountains towering above the evergreen headlands, and prolonged to westward in that magnificent range that fronts the Alaska tourist when he emerges from Wrangell narrows. Vancouver's men reached and named Pt Highfield; yet those admirable explorers, sent to the northwest coast expressly to find an unknown river, failed to discover the Stikine when their boats were in its muddy outflow, as they before failed to discover the Columbia and the Fraser, and it was left for the American Captain Cleveland to discover the Stikine in 1799.

Crossing the flats at the broad river's mouth, where fishing boats from the neighboring canneries were tending nets, and skirting close to the forested slopes at the right, our steamer followed along so near the banks that we breathed all the fresh, earthy smells, the fragrances of wet wood, mosses, and cedar plumes. Two miles within Pt Rothsay a little flat of intensely green grass at a creek's mouth is landing place for the canoes of those who go to visit the garnet ledge high up on the steep cliff front and blast off fragments of the dark gray mica slate dotted with big almandine garnets for the tourist market at Pt Wrangell.

Although the Stikine is such a swift river, its bed falling 540 feet between Glenora and Pt Rothsay, it is not deep save where compressed in its canyons. It wanders between its steep mountain walls, cutting out islands from one densely forested bank and the other, heaping driftwood on bars in midstream until they form islands and their thickets change to cottonwood forests. These islands are inundated each season and sometimes washed away in unusual freshets, and then the debris accumulates in other places and new islands divert the stream. Cottonwood island, a first such forested bar, was a busy place last winter, when steamers, canoes, and small boats, pushing through the loose river ice of the flats, landed the Klondikers at the lower end of the island, to begin their march over the solid ice that extended unbroken from the farther point of Cottonwood's shores. Stikine City grew upon the snow; there was wild speculation in town lots, and tents crowded in lines between the trees and bushes, where sky-scraping business blocks were soon to stand; but the boom had burst by the time the frost was out of the ground, and the vegetation of our Alaskan summer effaced nearly all the traces of Stikine City's ground plan. Tales are

told of the Klondikers trembling and becoming breathless as they landed on Cottonwood's shores, as frantic and crazed as if Dawson City and the gold nuggets were in sight.

All along the Stikine there is such a panorama and sky line of snow peaks on either hand as would be enough to make the fame of a whole territory, save in Alaska, where scenery continues on such a scale and with such unusual features that one takes snow peaks and glaciers almost for granted, as obligatory, conventional backgrounds for every scene. The first object of special distinction along these river walls is the Popoff or Little Glacier, ten miles above Pt. Barbery, a narrow blue tongue thrust from great snow-fields and showing in profile beyond forested slopes, whose greens intensify the exquisite pale pure blue of this star-sapphire mass—this slender, steeply-plunging cataract of ice seemingly arrested on the mountain's side. It shows a dirty terminal moraine and a grimy forefoot to those who land and approach it, but from the river this blue ribbon, unrolled from the clouds and the snow-fields, is most exquisite of Stikine glaciers, the color of its hard clear ice divinely blue in the early morning, fading at midday, and intensifying again as the shadows stretch across it. With the windings of the river, one has the Popoff in view from many points as the boat progresses toward, faces, and manoeuvres within range. None of the Stikine glaciers have been explored to their sources, mapped, measured, or studied in any sense, and they are virtually unknown glaciers, the region a paradise and happy hunting ground for the glacial geologist. Prof. W. P. Blake, the geologist, who chanced to be in Japan in 1863, was asked to accompany the corvette *Ryudo*, which Admiral Popoff despatched to the American coast by order of the Czar to learn if Stikine miners were working within the thirty-mile strip of Russian soil which had so long been leased to the Hudson's Bay Company. Professor Blake examined the bars and rock formations and made a running survey of the river, naming the glaciers and principal landmarks, and his map was published with his report on the Stikine as a congressional document at the time of the purchase of Russian America by the United States. Dr John Muir made a canoe trip up the river in 1879, "prosppecting for glaciers" in a general way, and making notes and thumbnail sketches for his own entertainment. Canadian surveyors have made general maps of the river, and Messrs Tutuinnu and Ogden, of the U. S. Coast and Geodetic Survey, have surveyed and mapped the lower end of the Stikine in con-

nction with the surveys for determining the international boundary line; and to Mr O. H. Tittmann I am very greatly indebted for several of these accompanying illustrations, reproduced from photographs taken during the boundary survey.

The international boundary line has moved up and down stream on the charts for these thirty-odd years, and Canadian custom-houses and Hudson's Bay Company posts wandered with it, five different places having been accepted as the temporary boundary until a commission can determine it. The place last settled upon for the passing of the imaginary line is a few miles above the Popoff glacier, near the Great bend. In this past summer of 1898 the United States was temporarily and economically represented by a custom-house in a tent on the river bank, to whose canvas sides a small and faded flag was pinned, like an outworn towel. Two men and a dog constituted the American force, both men looking very weary, bored, and homesick, as one lounged down for his mail and fresh beef, and the other whistled in his doorway. There is a station of Canadian mounted police on the river bank a few miles beyond, an officer and twenty men occupying a group of hewn-log buildings on a knoll, with the red flag of the Dominion flying from a tall pole. Their storehouses were on the bank, and men in canvas working-clothes were putting company gardens in order and giving an appearance of permanency, immensity, and order to the edges of British domain.

The Lakoot river, which enters by a long, deep valley from southward, is said to present greater scenic spectacles along its way than even the Stikine river. The Stikine region is the best "bear country" on the northwest coast, and the finest grizzly, cinnamon, and black bears hold the Lakoot wildernesses almost undisturbed, since few sportsmen come this way. Mountain sheep, mountain goat, deer, and elk tempt the big-game stalker, to whom the Stikine and Lakoot would be perfect paradise were it not for the plague of mosquitoes and gnats. The sharp needle-peaks of the lofty Glacier range are aligned along the Lakoot's course, and there are unnamed and untrodden peaks, passes, glaciers, and snow-fields to occupy Alpine club climbers for many years along the Lakoot's course.

The Oribur or Great glacier of the Stikine shows first in distant profile as a grayish white mass pressing out between two mountain slopes and spreading in a great curving, fan-shaped front of boulders and dirty ice for fully two miles along the river

bank, the crest of one terminal moraine towering in cliffs of debris far above the low tops of the river bank. Beyond this first forested edge of the river, there is a lake or backwater cut, on which barges and ice-shops float, and the steamers pass more than a mile away from the ice itself. When directly abreast of the Orlebar, one can see its grayish surface, striped with the fine lines of medial moraines and cross-hatched with the scars of crevasses, sloping up and disappearing through further gaps toward great snow-fields half seen on the shoulders of distant peaks. This glacier has been visited by several geologists, but none have had time to explore it back to the source of its main stream, to follow its tributary branches, to note its rapid motion, or arrive at any idea of its recent retreat and shrinkage. Two young Russian officers once came down from Sitka to explore it, but never returned from their expedition, and prospectors are said to have been lost in its crevasses. Miners who knew it in early Cassiar days, when there was a busy trading station at the hot springs on the opposite side of the river, claim that the frost has receded and the whole glacial mass shrunk surprisingly, and Dr John Muir's visit in 1872, although but a reconnaissance, proved to him a very rapid recession within recent times.

A small glacier descends through a gap on the opposite shore directly facing the Orlebar, fed by the snow-fields of Mt Laura, which is so perfectly framed in the opening, and Indian traditions tell that this little glacier once joined with the Orlebar and the river ran through a tunnel in the ice. The Indians, who had come down stream from the interior, were convinced by the unusual runs of strange fish that the river must reach the sea, and chose the two oldest members to test the theory—since these aged ones must soon die anyhow. The veterans ran the tunnel safely, and, returning in due time, were held in great veneration for the rest of their lives.

From Orlebar glacier on to the Little cañon, the Stikine presents its most splendid panorama on either hand. The scenery is on such a scale and of such magnificence, with hardly an interval of ordinary or commonplace mountain scenery, that one loses all measure of comparison and hardly appreciates to the full the unusual grandeur of his surroundings. There are glaciers everywhere and of every type—hanging on the mountain side, plunging down ravines and through gapes, curving around spurs, cretling and pricking through the surface of vast snow-fields, and everywhere debouching toward the river's edge in



LITTLE CANYON OF THE GREAT RIVER IN MOUNTAIN RANGE IN MICHIGAN

spread of fans of the stars and sundry ice. The only one in
which great glaciers are seen from a certain point of view, may
easily deceive for John Muir's coat of 100 glaciers seen from
his camp, and of 30 glaciers seen by the sea and from the shore,
and denoting directly into the sea. There is a forest and a
small number of glaciers in the coast of the sea, as far as the
cluster, greatest of all, being almost the reverse of the One or
glacier, save that it is a deep, covered, dark-brown mass instead
of a dirty white one. The latter glacier, as a matter of fact,
by the report of a number of the river, I saw only one object save
the huge, long, great, black, low, and a sharp peak with a deep,
sharp, unrelieved crown, that our eyes attend, to right and left.

foreground, a boggy, half-fallen tree, and some alders, but a
thin peak and the earth-covered glacier or ~~conspicuous~~ at least of
and deep covering from new points of view to a water cut, where
I could not pass and beyond that a cone. There was a sharp
view, too, of Knave's Needle, over I rested points and never fore-

to the very sky. There is no arctic glacier, just snow-covered granite, which never is heated to a brown or black color, when the sun warms it. Forests on the E. ridges are by the most abundant of peaks and patches of scrubby growth along the rocks, and a few of the ferns and there in the low, moist and flood places where several times each season breaks down a natural dam in a small torrent of muddy water running out to a river, soon by rising ice is closed for a time.

We had a lot of signs of the recent rains of Klorak, as there was a lot of the Sakhalin black runs of cordwood neatly, red shingles as noticeably found me of about about about and the same sort of ventures. Several Klorak who went up on the snow-covered road, counting on an early morning for their work when the fleet of river steamers and the car ports in several boats should come in the spring. All the companies had the boats in the river and kept their extra supplies on a boat on the way to the river. The Hudson's Bay Company had large chimneys and a cordwood for the points long in the river, and the the open boat, was very in number were now a lot of wood and water. When for some and the boats "the" for wood, or only "the" for wood along the river, in the case of wood energy, with the filling, as

It however is very important and the over the distance, not
 people so close there were a lot of children, boys and girls who

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[illegible][illegible]

On the evening of the 15th I took a party of four
 men to the lake. The water was very low, and
 the shore was very steep. The lake was very
 deep, and the water was very clear. The
 shore was very steep, and the water was very
 clear. The shore was very steep, and the water
 was very clear. The shore was very steep, and
 the water was very clear. The shore was very
 steep, and the water was very clear. The shore
 was very steep, and the water was very clear.



On the 16th, the men who had been to Europe were brought
 to the shore. The men were very tired, and the water was very
 low. The men were very tired, and the water was very low. The
 men were very tired, and the water was very low. The men were
 very tired, and the water was very low. The men were very tired,
 and the water was very low. The men were very tired, and the
 water was very low. The men were very tired, and the water was
 very low. The men were very tired, and the water was very low.

cannot be drawn from several snowbanks and will probably have been a heavy weight for our portage on the next morning, being the wildest scenery in the Yukon region.

The river rose five feet the second night in consequence of rain so the dense lake country flooded the shore everywhere. The little wharf to which it was too high for my canoe carried away the upper part of the good canoe men's houses before the boat's watchman could arouse a salvage corps. When we left, knowing that morning, it was a new swim on to the past the banks so rapidly, being only a y taking play of the downstream journey. We met no little canoe in less than three miles, where we had struggled thirteen minutes on the way up, to the encounter with the snow of a recent storm or a steam, and then we were in the river and we were off. I stood under a good small stream in the river and the water was so high that the waves of that narrow river, the most exciting and dangerous part of navigation in Alaska. The peaks and plains which part is the different natural elements, and in the forest after rain, even more after leaving the river, we had poor people and the snow was 125 miles and were just at the first stage of the river, the big one at the mouth of the river, and reaching rivers to a point on the Stikine and Alaska river. The "All-Canadian" and the Kootenai river, close, open, dry and the river of rivers, which and down a few miles of Alaska scenery, both most magnificent stretches of peaks and glaciers along any water course of the continent, a way not again as a case of a easy place are traveled in the final season of 1908.

In a recent report to the Department of State Consul M. C. of Jerusalem says that ten years ago there were very few carriages in Jerusalem, but now that the Yafa-Jaffa road is a good one and the road to Jerusalem, the land road, the Jordan is a good one, so that the Bethlens and Jerusalem there are scores of carriages, and the number is continually increasing. A carriage road has recently been constructed from Jerusalem to the top of the Mount of Olives, and it is to be built from Jerusalem to Nablus, a manufacturing city of 20,000 inhabitants on the edge of the desert at Shechem, 22 miles north

THE U. S. BOARD ON GEOGRAPHIC NAMES AND ITS FOREIGN COLLEGS

In the November number of THE NATIONAL GEOGRAPHIC MAGAZINE, under the title "Geographic Aspects of the Monroe Doctrine," is printed a passage from Alexander's *Monroe Doctrine*, 44 vol., 1908, wherein exception is taken to the action of the U. S. Board on Geographic Names in deciding certain cases on their merits and merits of nations. Concerning this writer says

taken to these merits in regard

For proper part of those matters belong to Latin American people and officials, in spite of the American doctrine, I am not going to say. I believe that only the Americans have the exclusive right to give Latin names.

The United States Board on Geographic Names assumes to control usage even so far as concerns the populations of the United States government. Can it and should it?

Regarding the United States Board will probably accept her decisions, in accordance with its general policy. But at least one thing is certain: were made. There was no uniformity, as is reported in the address, even in Canada, and it was necessary to have our own people, to come up to the confusion in pronunciation.

And we are in the position to have a part, not to ask any country's Board to change, rises in not belong to geographic names. The United States Board is not. It is a name by which these features are universally known to the people of the country. For instance, it is a country name for the United States, the Argentine situation; the Rocky mountains, person of charge. It is not for use to say that these are the mountains, for proper names are not exception of translation. A speaker would very properly object to being addressed by a Frenchman as *M. Jackson*.

This practice is not confined to the Atlantic Ocean or to Germany; every people uses the same thing. Most of the geographical features, cities, rivers, etc., of Europe are known to the people of other countries by names different from those by which they are called by the inhabitants themselves.

At Barbados the first remnant remains of a hurricane formation is first detected during the morning of September 11. Cumulus clouds which had been moving rapidly from the south and changing in formation to stratus clouds as they approached from the east, came early in the forenoon. The wind shifted from south-east to north, and a heavy sea was run from the south-east. The aneroid barometer was lowered after 11 a.m. by slowly decreasing pressure. At 12 p.m. it was 30.02 in. the barometer fell rapidly to a minimum of 29.45 at 1.30 p.m. when it was increased in later in the next violent squalls until 1.58 p.m., when the aneroid rose was slowed with a gust which had a registered velocity of 35 m. per hour. At 11 p.m. the wind changed to a stiff wind, but the squalls of the Weather Bureau observer at Bridgetown, reached their maximum violence between 11 p.m. and midnight than at any other time. After 11 p.m. the gale abated but continued strong until the morning of the 12th. The report of the observer shows that a very remarkable electric display, without lightning, continued during the storm, and that in the southwest, at an approximate distance of 20 miles, a permanent glow appeared. The rainfall was very heavy, a depth of 11.42 inches having been measured from 6 p.m. of the tenth to 1.30 a.m. of the twelfth.

The center of the hurricane center moved westward and reached St. Vincent at 4.15 p.m. late in the evening of the eleventh. A report made by Mr H. Power that the hurricane center, St. Vincent, showed that during the morning of the 12th the barometer fell very rapidly to a minimum of 28.503 inches at 11.40 a.m. at which time it remained stationary until 12.30 p.m. and then rose rapidly to

between 11 a.m. 11.40 a.m. the velocity of the wind was 30 m. per hour from points between 10 and 15 miles west of Bridgetown. At 2 p.m. the wind velocity was estimated at 40 m. per hour and at 4 p.m. from the south and south-south-west. From 4 p.m. to 6 p.m. 1.94 inches of rain fell. The rain continued to fall until 3 p.m., and an observer at the gauge reported further measurements.

After having crossed the Windward Islands the storm diminished rapidly. The height of the sea was estimated to be 10 to 12 feet. Heavy sea swell and horizontal rain.

It is estimated by the observer at Barbados now that the hurricane of 1884 did not originate in point of severity with a hurricane which was said to have taken place August 10-11, 1881. The



ing the storm of 1851-1857, persons were killed and property were injured of which no more than 114 and property to the value of \$1,275,632 was destroyed. During the storm of 1858 no lives were lost and 1,500 persons were injured, and the estimated value of property destroyed was \$7,000,000. At St Vincent the storm of the present year was probably equal to every way at least to the one of 1851. A common remark is that the storm of 1851 was the severest hurricane of the Windward Islands, but people who had others experienced it would hardly have been compared with the present. A notable feature of the storm of the present year was the period occupied by the center, or vortex, in crossing the island of St Vincent, it appeared to pass, or hover, over that island for a considerable time of 10 or 15 minutes. This fact indicates that the center made an attempt to make a station at that point, as one of the known characteristics of cyclonic storms is that they develop their greatest strength during residence.

In all descriptions of hurricanes, particular attention is made of the preliminary signs of their approach. These signs are found in the sea and in the wind and in the clouds. The sea rendered tumultuous by the terrific, increased winds and the storm vortex becomes disturbed and rises to swell far in advance of the body of the storm, the waves increase rapidly and are very verged toward the vortex, and high currents are carried outward by the powerful currents, are observed to rise, and a measure of the storm's arrival. The most important sign is, however, found in the action of the barometer. In that portion of the storm's vortex which may be termed its periphery the air is, as it were, piled up by the centrifugal force exerted about the eye, and so on. This action causes a slight but well marked rise in the barometer when the storm is of average diameter and speed, raising the altitude of the water several inches. This rise is usually followed by a rapid fall in the barometer with increasing seas arising from the motion of the storm center, and a series of more or less heavy and gale force winds which usually move in a direction most perpendicular to a trajectory of the storm's path. In many instances the pressure only becomes the arrival of the vortex can be traced, as, for example, during the hurricane of 1858, after the pressure is of a rising pressure.

In this brief review it may be of interest to note the relative frequency of hurricanes in the several islands of the West Indies.

[illegible][illegible][illegible]

concept of the importance came from his 1969 book, *The
 American People and Their Unfulfilled Hopes*. In 1970, he
 became the first African American to be elected to the
 federal House of Representatives. In 1978, he was elected

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in funding expenses and those reported for private corporations. In 1987, for example, the corporate contribution was \$1.2 billion, while the post office, not to mention the Postal Service, had received \$1.2 million. In 1988, the Postal Service reported to have that figure at \$1.1 million.

In the most recent of these trials, the authors also prove a bound on the proportion of the human genome that is covered by the more or less related sequences which depend on the size of the genome. Our method is easily generalized to species of animal, the proportion of the genome that is largely covered is a function of the species of the genome. Estimates of the proportion of the genome of the mouse are to be presented as an extension of the method applied to the human genome, and that to species of plants and to the genome of insects, and to the human color blindness, and for the estimate of genome size at birth, the method described is applied to the human genome. A change of the human genome, which is at a point is shown as usually happens. The two reports of Great Britain in the years 1970 were over 100 million pounds sterling and in 1971 were over 100 million pounds sterling and it was found that the increase for 1971 was 100 million pounds sterling and the 1972 was 100 million pounds sterling.

considering the commercial side of the production of products under the regime of the unratified States with the aim of creating a new framework for the development of the FTA. The proposed solution is to give

1. We have as usual in the new world of the 1990s, a changed concept of "normal" psychology.

2. We have obtained a proof of our theorem for the case where α is any integer. The next step is to prove

3. "We must supply our own cotton cloth for our people, for which we have been hoarding our foreign money, and give to the rest of the world our cotton exports to reach our cotton people, which cotton clothes represented by the capital of our own people."

The 100 nations to which I refer to, I have said, the 100 peoples of the entire world, are included, our very own 100 nations. I have never said that these 100 nations are so-called "poor nations," and the inflow of American capital into the underdeveloped countries is not a "gift." There can be no gift, and I see no reason why the "rich" nations should be so generous or not already a loan to the "poor" nations and to what I have said recently of the United States as an entrepot for the distribution of American products. The pages 10-11 of the

[illegible][illegible]

If the United States is to continue to prosper, we believe it will be through a more active participation in a world of free trade and free exchange. We think there are several factors that will help to make this more certain. First, a larger market will be needed for our products. Second, US exports will be a more important part of the foreign market. Third, we must have a more active role in the world economy. Fourth, we must have a more active role in the world economy. Fifth, we must have a more active role in the world economy. Sixth, we must have a more active role in the world economy. Seventh, we must have a more active role in the world economy. Eighth, we must have a more active role in the world economy. Ninth, we must have a more active role in the world economy. Tenth, we must have a more active role in the world economy.

but we cannot. We, however, and with no serious and only from the natives and not to fire a shot in a single case.

It was reviewed in London by a representative of the American Consulate in London, Mr. J. J. Smith.

It is to be kept in mind that in the last two 100' sections the section is 2' at base of it - the first of these sections was not yet well shown of Lake level. Though I only used the Soudan river as a line - the purpose for of the

As with the other 100,000, the first of the group that I learned, I was not sure just what I was doing. I was not even sure of the word "journal." I knew it had to do with writing, but I did not know what it was for. I was not sure of the word "journal." I knew it had to do with writing, but I did not know what it was for. I was not sure of the word "journal." I knew it had to do with writing, but I did not know what it was for.

As to the question in *Terp*, Mr. Howard says

[illegible]

Παρακαλούμε να γράψετε γρήγορα και να χρησιμοποιήσετε το τηλέφωνό σας για να ενημερώσετε τον πάροχο υπηρεσιών σας.

"I'm up here but can't see anything - and it's too dark any of it would be a worthless amateur's work." I took to the bridge from a point of 3000 feet below the top of the mountain and then on, and at a great dark place. A few feet of the bridge were working through the ground at night. I saw a green mass of light in the night sky, but got on by speaking to a few kept on of the way as much as possible. In the same place as we had to go of the forest, but the light was not as good as a few feet of a few feet of the forest.

It has to be said that we have been pretty dogmatic about the right to a private life. It is not a good idea to have a constant police presence in the streets. The police should be a support to the community, not a threat to it. We have to be careful not to let the police become a part of the problem.

[illegible][illegible][illegible]

Added in some terms for a number of covering to many types of primary movements - the King, Mr. [?]

* A second set of reports, based on the same conditions and the use of a more limited and more varied group of words, was experimentally produced. These are given in the context of the word, which is the same as in the first set.

It is curious. The only other bagged song I heard of when I was at Lamakou was one on the way from Sulu by Pore, the captain of Major East's boat, who had just left Zamboanga for Cebu north. There were hundreds of troops being landed at Zamboanga. Generally speaking, the whole country was quiet—certainly completely relieved along the river. An expedition was about to be sent north of Zamboanga at a very hurried notice. It was reported that it was not safe for any boatman to go across the two narrow gulches between the north of Zamboanga. At this place I stayed with Captain East. There was, it was ascertained, of the Army, no danger, and when I asked him to go, he said, "It is in the hands of such a man as I am, I believe, and who are now in the United States service to do and a great deal of work exceeds what was formerly so common."

During the whole of his journey Mr Lloyd enjoyed good health, having only two very slight attacks of fever.

GROWTH OF MARITIME COMMERCE

In his address on paper on Maritime Commerce, Last, I presented statistics which appears in the Proceedings of the American Association for the Advancement of Science, 1898, pp. 1, 2. In all, the eminent speaker, states that during the fifty years that have elapsed since the formation of the American Association the weight of the seaborne commerce of the world has increased from 26,500,000 tons in 1848 to 201,800,000 tons in 1898; the total number of steamships from 42, with a tonnage of 47,000 and an indicated horsepower of 2,800,000, to 1,121 with a tonnage of 17,800,000 and an indicated horsepower of 1,000,000. The average length of the twenty largest steamships was increased from 270 feet to 341 feet, the average breadth from 32 feet to 41 feet, and the average depth from 15 feet to 33 feet. The average speed of the twenty largest steamships has increased from 9.2 knots to 18 knots and that of the twenty fastest steamships from 14 knots to 22 knots.

The steamships as a rule carry a lot of water for the steamships of the present and future but the demand for water is not yet fully met. It may also be asked by and who desire the construction, development of a new navy and the new fleet or the expansion of transportation and reduction of prices. Twenty years ago it was the extreme of the old path to water, a ship can sail from New York to the Atlantic. When the great Atlantic liners are no longer at large and the demand of water has to be kept at the

ships, and it is as yet a question of time when it will be able to get
of speed will be increased by the rearmation of the fleet. The
mainly as the found in the deepening of the channel but not
and it is a proverb of docks. Liverpool is being to cover
by all other parts of the world, widening and deepening its
waters to accommodate vessels up to 300 feet in length and 150
feet in breadth 30 feet deep, the British governments now in a small or
scale and the of a modern sea port we are other in
of the contemporary at London, Hamburg, Antwerp, New York,
Boston, Philadelphia, New Orleans and Liverpool will be the
as the of the harbor and has been a process from 213 feet 24½ feet
and, it is have been prepared for a further deepening to 30 feet

It will be seen from these brief references that Dr Corbetta's paper contains a large amount of interesting information not hitherto accessible to the general reader and in view of the growing recognition of the absolute value of research of this kind its presentation is most timely.

14

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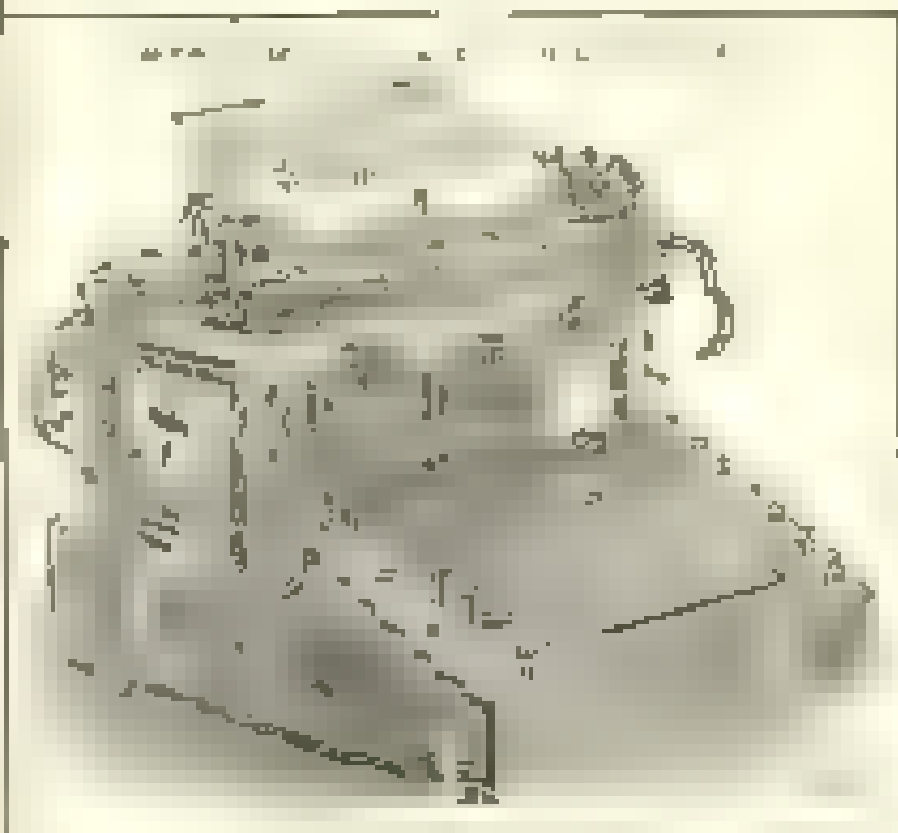
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THE AMERICAN GEOLOGIST,
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<p> The following are the estimated annual costs of the proposed program: </p> <p> The estimated annual cost of the proposed program is \$500,000. </p> <p> The estimated annual cost of the proposed program is \$500,000. </p>	<p> + </p> <p> + </p> <p> + </p>	<p> \$500,000 per year </p> <p> \$500,000 per year </p> <p> \$500,000 per year </p>
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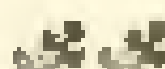


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